

LISTING OF CLAIMS

Please amend claims 57 and 59, cancel claim 58 and withdraw claims 78-82, all without prejudice or disclaimer, as set forth below. Additionally, please enter new claim 83.

1-56. (Canceled)

57. (Presently Amended) Equipment placeable in a basin or tank containing wastewater for clarification of the wastewater, comprising:

a membrane unit comprising a wash chamber and a membrane module disposed over said wash chamber;

said membrane module comprising a plurality of filter plates and a wastewater infeed, and said wash chamber further comprising an air connection for supply of cleaning air thereto;

a horizontally oriented sieve disposed between said wash chamber and said membrane module and configured for distributing air from said wash chamber into said membrane module; and

a vertically oriented sieve at said wastewater infeed of said membrane module, wherein said vertically oriented sieve is located between said horizontally oriented sieve and said filter plates; and

whereby air supplied into said wash chamber is distributed through said horizontally oriented sieve evenly across said membrane module and cleans said filter plates within said membrane module as said air flows upwards through said membrane module.

58. (Canceled)

59. (Presently Amended) The equipment as in claim 58, wherein said vertically oriented sieve ~~between said wash chamber and said membrane module~~, and said horizontally oriented sieve ~~at said wastewater feed~~ are any one of a perforated plate, mesh member, or strainer.

60. (Previously Presented) The equipment as in claim 57, further comprising an aerator for supplying oxygen to the basin or tank.

61. (Previously Presented) The equipment as in claim 60, wherein said aerator is separate from said wash chamber, and supplied from a different source of air.

62. (Previously Presented) The equipment as in claim 61, wherein said aerator is variably positionable within the basin or tank.

63. (Previously Presented) The equipment as in claim 61, wherein said aerator comprises a flexible hose with a plurality of openings therein.

64. (Previous Presented) The equipment as in claim 57, wherein said wash chamber comprises an opening for removal of sludge therefrom.

65. (Previously Presented) The equipment as in claim 57, further comprising a frame within which the other components of said equipment are mounted, said frame placeable into the basin or tank having wastewater to be treated.

66. (Previously Presented) The equipment as in claim 65, wherein the height of said membrane unit within said frame is adjustable.

67. (Previously Presented) The equipment as in claim 57, further comprising a permeate pump and at least one permeate line for removing permeate from said membrane module, and further comprising a control system for operation of said permeate pump, said control system comprising a level controller within the basin or

tank whereby operation of said permeate pump is control by said control system as a function of the level of liquid within the basin or tank.

68. (Previously Presented) The equipment as in claim 67, further comprising an auxiliary permeate pump controlled by said control system.

69. (Previously Presented) The equipment as in claim 67, further comprising a flow meter in said permeate line, said flow meter in communication with said control system, whereby operation of said permeate pump is controlled as a function of flow through said permeate line.

70. (Previously Presented) The equipment as in claim 67, wherein said level controller comprises at least one float switch.

71. (Previously Presented) The equipment as in claim 67, further comprising a shut-off valve actuated by said control system, said valve in said permeate line.

72. (Previously Presented) The equipment as in claim 67, further comprising a throttle valve controlled by said control system, said valve in said permeate line.

73. (Previously Presented) The equipment as in claim 67, wherein said level controller is configured to determine a plurality of liquid levels within the tank or basin, said control system configured to control operation of said permeate pump as a function of different detected liquid levels within the tank or basin.

74. (Previously Presented) The equipment as in claim 73, wherein said permeate pump is a variable output pump, and output of said pump is controlled as a function of liquid level within the tank or basin.

75. (Previously Presented) The equipment as in claim 73, wherein said control system further controls input of said cleaning air to said wash chamber as a function of liquid level within the tank or basin.

76. (Previously Presented) The equipment as in claim 67, further comprising at least one sight glass in said permeate line.

77. (Previously Presented) The equipment as in claim 67, further comprising an aerator for supplying oxygen to the basin or tank, said aerator controlled by said control system, and wherein said control system controls operation of said permeate pump, said aerator, and supply of cleaning air to said wash chamber as a function of any combination of pressure in said permeate line, flow through said permeate line, turbidity of liquid in said permeate line, oxygen content of liquid within the tank or basin, or liquid level within the tank or basin.

78. (Withdrawn) A method for clarifying wastewater in a basin or tank having a membrane unit comprising a wash chamber and a membrane module disposed over the wash chamber, and a sieve disposed between the wash chamber and the membrane module, said method comprising:

supplying air to the wash chamber and distributing the air from the wash chamber evenly across the membrane module through the sieve so that the air flows upwards and through the membrane module to clean filter plates in the membrane module;

removing permeate from the membrane module with a permeate pump, and controlling operation of the permeate pump as a function of permeate level within the basin or tank.

79. (Withdrawn) The method as in claim 78, wherein the permeate pump has a variable output rate, and further comprising controlling the output rate of the pump as a function of permeate level within the basin or tank.

80. (Withdrawn) The method as in claim 78, further comprising controlling the flow of air to the wash chamber as a function of permeate level within the basin or tank.

81. (Withdrawn) The method as in claim 78, further comprising controlling the flow of air to the wash chamber and output of the permeate pump as a function of any combination of permeate pressure or flow from the permeate pump, oxygen content of the permeate, or turbidity of the permeate.

82. (Withdrawn) The method as in claim 79, wherein oxygen content is measured by a CBS oxygen determination operation

83. (New) The equipment as in claim 57, wherein said aerator can be configured such that the oxygen flowing up from said aerator cleans said vertically oriented sieve.